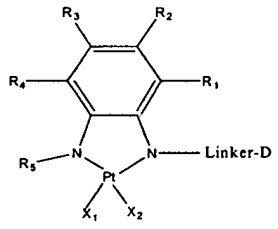
The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

Listing of The Claims:

1. (Currently Amended): A composition comprising the formula:



wherein:

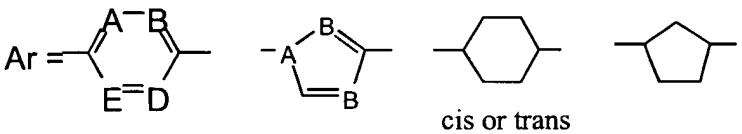
R_1-R_5 may be the same or different and are independently selected from the group consisting of H, alkyl (1 to 10 carbon atoms), benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_6, -(C=O)OR_6, or -OCH_2(C=O)R_6 and a salt, wherein R_6 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X_1 and X_2 may be the same or different and ~~X~~ at least one of X_1 or X_2 is a leaving group; and

linker is a moiety joining a nitrogen to a detectable marker, D.

2. (Original): The composition of claim 1, wherein said leaving group is selected from the group consisting of NO_3, halogen CN, $OCOR_7$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5 – demethyl-phenyl–4-sulfate, wherein R_7 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_6, -(C=O)OR_6, -OCH_2(C=O)R_6 and a salt.

3. (Original): The composition of claim 1 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH{=}CH)_mO(CH{=}CH)_p(CH_2)_q$, $CO(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

4. (Original): The composition of claim 1 wherein the detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

5. (Original): A nucleic acid comprising a composition of claim 1.

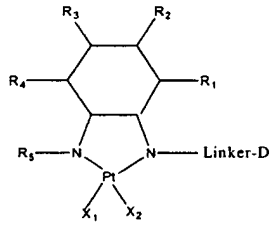
6. (Original): The nucleic acid of claim 5 wherein said composition forms a non-covalent adduct with said nucleic acid.

7. (Original): A probe comprising a composition of claim 1.

8. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 1 with said nucleic acid.

9. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 6 and detecting signal from said detectable marker.

10. (Currently Amended): A composition comprising the formula:



wherein:

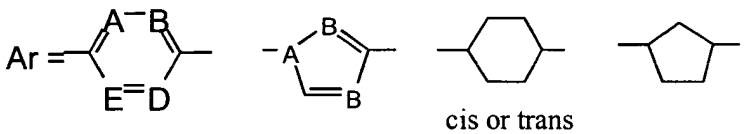
R_1- R_5 may be the same or different and are independently selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_6, -(C=O)OR_6, or -$OCH_2(C=O)R_6$ and a salt, wherein R_6 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X_1 and X_2 may be the same or different and ~~X~~ at least one of X_1 and X_2 is a leaving group; and

linker is a moiety joining a nitrogen to a detectable marker, D.

11. (Original): The composition of claim 10, wherein said leaving group is selected from the group consisting of NO_3, halogen, CN, $OCOR_7$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_7 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_6, -(C=O)OR_6, -$OCH_2(C=O)R_6$ and a salt.

12. (Original): The composition of claim 10 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH=CH)_mO(CH=CH)_p(CH_2)_q$, $CO(CH_2)_n(CH=CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH=CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



cis or trans

and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

13. (Original): The composition of claim 10 wherein the detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

14. (Original): A nucleic acid comprising a composition of claim 10.

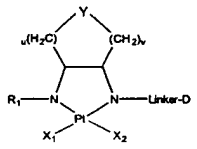
15. (Original): The nucleic acid of claim 14 wherein said composition forms a non-covalent adduct with said nucleic acid.

16. (Original): A probe comprising a composition of claim 10.

17. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 10 with said nucleic acid.

18. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 15 and detecting signal from said detectable marker.

19. (Currently Amended): A composition comprising the formula:



wherein

Y is selected from the group consisting of O, S, and C;

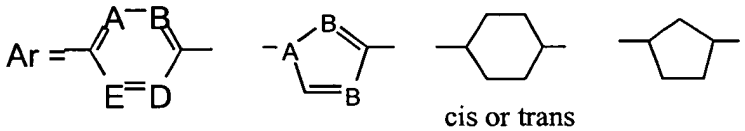
R_1 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_2, -(C=O)OR_2, -OCH_2(C=O)R_2, and a salt, wherein R_2 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X_1 and X_2 are the same or different and ~~X~~ at least one of X_1 or X_2 is a leaving group;

linker is a moiety joining a nitrogen to a detectable marker, D, and u and v are the same or different and are an integer from 1 to 10.

20. (Original): The composition of claim 19, wherein said leaving group is selected from the group consisting of NO_3, halogen, CN, $OCOR_3$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_3 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_2, -(C=O)OR_2, or -OCH_2(C=O)R_2 and a salt.

21. (Original): The composition of claim 19 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH{=}CH)_mO(CH{=}CH)_p(CH_2)_q$, $CO(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



cis or trans

and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

22. (Original): The composition of claim 19 wherein said detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

23. (Original): A nucleic acid comprising a composition of claim 19.

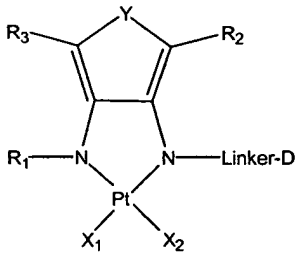
24. (Original): The nucleic acid of claim 23 wherein said composition forms a non-covalent adduct with said nucleic acid.

25. (Original): A probe comprising a composition of claim 19.

26. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 19 with said nucleic acid.

27. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 25 and detecting signal from said detectable marker.

28. (Currently Amended): A composition comprising the formula:



wherein:

-Y is selected from the group consisting of O, S, and C;

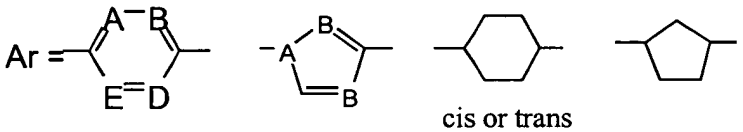
R_1-R_3 may be the same or different and are independently selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_4, -(C=O)OR_4, or -OCH_2(C=O)R_4 and a salt, wherein R_4 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X_1 and X_2 are the same or different and ~~X~~ at least one of X_1 or X_2 is a leaving group; and

linker is a moiety joining a nitrogen to a detectable marker, D.

29. (Currently Amended): The composition of claim 28, wherein said leaving group is selected from the group consisting of ~~No3~~ NO_3, halogen, CN, $OCOR_5$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate wherein R_5 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_4, -(C=O)OR_4, -OCH_2(C=O)R_4 and a salt.

30. (Original): The composition of claim 28 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH=CH)_mO(CH=CH)_p(CH_2)_q$, $CO(CH_2)_n(CH=CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH=CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



cis or trans

and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

31. (Original): The composition of claim 28 wherein said detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

32. (Original): A nucleic acid comprising a composition of claim 28.

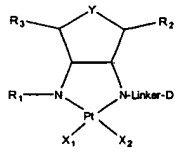
33. (Original): The nucleic acid of claim 32 wherein said composition forms a non-covalent adduct with said nucleic acid.

34. (Original): A probe comprising a composition of claim 28.

35. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 28 with said nucleic acid.

36. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 34 and detecting signal from said detectable marker.

37. (Currently Amended): A composition comprising the formula:



wherein:

Y is selected from the group consisting of O, S, and C;

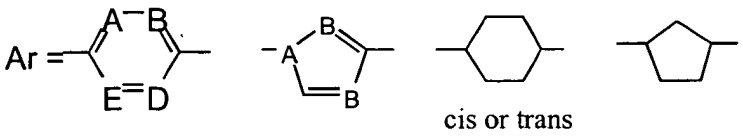
R_1-R_3 may be the same or different and are independently selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_4, -(C=O)OR_4, or -$OCH_2(C=O)R_4$ and a salt, wherein R_4 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X_1 and X_2 are the same or different and ~~X~~ at least one of X_1 or X_2 is a leaving group; and

linker is a moiety joining a nitrogen to a detectable marker, D.

38. (Currently Amended): The composition of claim 37, wherein said leaving group is selected from the group consisting of ~~No_3~~ No_3, halogen, CN, $OCOR_5$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_5 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_4, -(C=O)OR_4, -$OCH_2(C=O)R_4$ and a salt.

39. (Original): The composition of claim 37 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH=CH)_mO(CH=CH)_p(CH_2)_q$, $CO(CH_2)_n(CH=CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH=CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

40. (Original): The composition of claim 37 wherein said detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

41. (Original): A nucleic acid comprising a composition of claim 37.

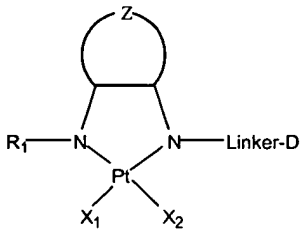
42. (Original): The nucleic acid of claim 41 wherein said composition forms a non-covalent adduct with said nucleic acid.

43. (Original): A probe comprising a composition of claim 37.

44. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 37 with said nucleic acid.

45. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 43 and detecting signal from said detectable marker.

46. (Currently Amended): A composition comprising the formula



wherein

Z is selected from the group consisting of $(CH_2)n$, and $(CH_2)nO(CH_2)m$, wherein m and n are integers from 2 to 8, inclusive;

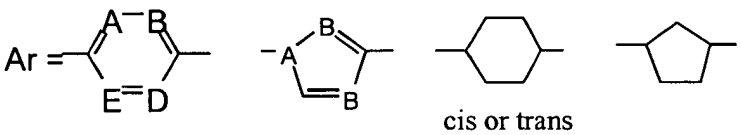
R_1 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_2, -(C=O)OR_2, or -OCH_2(C=O)R_2 and a salt, wherein R_2 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X_1 and X_2 are the same or different and ~~X~~ at least one of X_1 and X_2 is a leaving group; and

linker is a moiety joining a nitrogen to a detectable marker, D.

47. (Original): The composition of claim 46, wherein said leaving group is selected from the group consisting of No_3, halogen, CN, $OCOR_3$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_3 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_2, -(C=O)OR_2, -OCH_2(C=O)R_2 and a salt.

48. (Original): The composition of claim 46 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH{=}CH)_mO(CH{=}CH)_p(CH_2)_q$, $CO(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

49. (Original): The composition of claim 46 wherein said detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

50. (Original): A nucleic acid comprising a composition of claim 46.

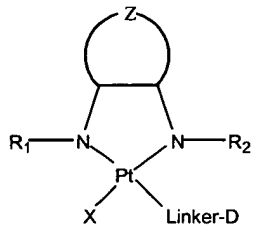
51. (Original): The nucleic acid of claim 50 wherein said composition forms a non-covalent adduct with said nucleic acid.

52. (Original): A probe comprising a composition of claim 46.

53. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 46 with said nucleic acid.

54. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 52 and detecting signal from said detectable marker.

55. (Currently Amended): A composition comprising the formula



wherein

Z is selected from the group consisting of $(CH_2)_n$, and $(CH_2)_nO(CH_2)_m$, wherein m and n are integers from 2 to 8, inclusive;

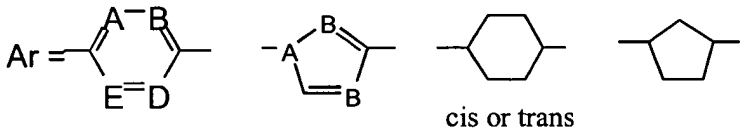
R_1 and R_2 may be the same or different and are selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_3, -(C=O)OR_3, or -OCH_2(C=O)R_3 and a salt, wherein R_3 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X_4 is a leaving group; and

linker is a moiety joining a detectable marker, D to the platinum ion.

56. (Original): The composition of claim 55, wherein said leaving group is selected from the group consisting of NO_3, halogen, CN, $OCOR_4$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_4 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_3, -(C=O)OR_3, -OCH_2(C=O)R_3 and a salt.

57. (Original): The composition of claim 55 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH{=}CH)_mO(CH{=}CH)_p(CH_2)_q$, $CO(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

58. (Original): The composition of claim 55 wherein said detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

59. (Original): A nucleic acid comprising a composition of claim 55.

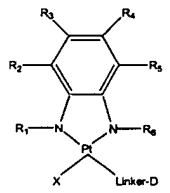
60. (Original): The nucleic acid of claim 59 wherein said composition forms a non-covalent adduct with said nucleic acid.

61. (Original): A probe comprising a composition of claim 55.

62. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 55 with said nucleic acid.

63. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 61 and detecting signal from said detectable marker.

64. (Original): A composition comprising the formula:



wherein:

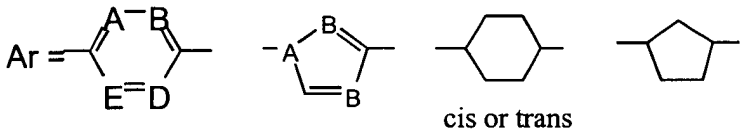
R_1-R_6 may be the same or different and are independently selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_7, -(C=O)OR_7, or -OCH_2(C=O)R_7 and a salt, wherein R_7 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X is a leaving group; and

linker is a moiety joining a detectable marker, D to the platinum ion.

65. (Currently Amended): The composition of claim 64, wherein said leaving group is selected from the group consisting of ~~No3~~ NO_3, halogen, CN, $OCOR_8$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_8 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_7, -(C=O)OR_6, -OCH_2(C=O)R_7 and a salt.

66. (Original): The composition of claim 64 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH=CH)_mO(CH=CH)_p(CH_2)_q$, $CO(CH_2)_n(CH=CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH=CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



cis or trans

and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

67. (Original): The composition of claim 64 wherein the detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

68. (Original): A nucleic acid comprising a composition of claim 64.

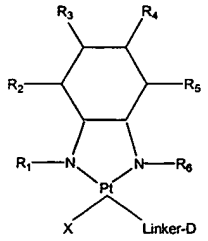
69. (Original): The nucleic acid of claim 68 wherein said composition forms a non-covalent adduct with said nucleic acid.

70. (Original): A probe comprising a composition of claim 64.

71. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 67 with said nucleic acid.

72. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 70 and detecting signal from said detectable marker.

73. (Original): A composition comprising the formula



wherein

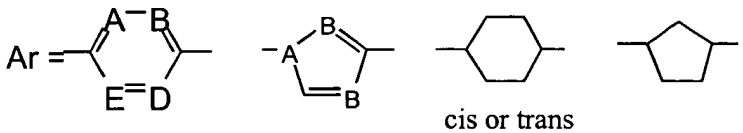
R_1-R_6 may be the same or different and are independently selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_7, -(C=O)OR_7, or -OCH_2(C=O)R_7 and a salt, wherein R_7 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X is a leaving group; and

linker is a moiety joining a detectable marker, D, to the platinum ion.

74. (Currently Amended): The composition of claim 73, wherein said leaving group is selected from the group consisting of ~~No3~~ NO_3, halogen, CN, $OCOR_8$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_8 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_7, -(C=O)OR_6, -OCH_2(C=O)R_7 and a salt.

75. (Original): The composition of claim 73 wherein said linker is selected from the group consisting of: (CH_2)n, $(CH_2)_n(CH{=}CH)_mO(CH{=}CH)_p(CH_2)_q$, $CO(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

76. (Original): The composition of claim 73 wherein the detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

77. (Original): A nucleic acid comprising a composition of claim 73.

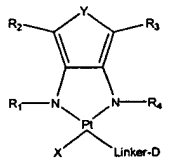
78. (Original): The nucleic acid of claim 77 wherein said composition forms a non-covalent adduct with said nucleic acid.

79. (Original): A probe comprising a composition of claim 73.

80. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 73 with said nucleic acid.

81. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 79 and detecting signal from said detectable marker.

82. (Original): A composition comprising the formula:



wherein

Y is selected from the group consisting of O, S, and C;

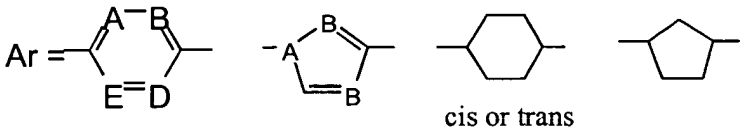
R_1-R_4 may be the same or different and are independently selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_5, -(C=O)OR_5, or -OCH_2(C=O)R_5 and a salt, wherein R_5 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X is a leaving group; and

linker is a moiety joining a detectable marker, D, to the platinum ion.

83. (Currently Amended): The composition of claim 82 wherein said leaving group is selected from the group consisting of ~~No3~~ NO_3, halogen, CN, $OCOR_6$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_6 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_5, -(C=O)OR_5, -OCH_2(C=O)R_5 and a salt.

84. (Original): The composition of claim 82 wherein said linker is selected from the group consisting of: (CH_2)n, $(CH_2)_n(CH{=}CH)_mO(CH{=}CH)_p(CH_2)_q$, $CO(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH{=}CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



cis or trans

and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

85. (Original): The composition of claim 82 herein the detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

86. (Original): nucleic acid comprising a composition of claim 82.

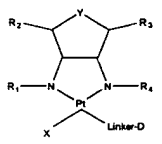
87. (Original): The nucleic acid of claim 86 wherein said composition forms a non-covalent adduct with said nucleic acid.

88. (Original): A probe comprising a composition of claim 82.

89. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 82 with said nucleic acid.

90. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 88 and detecting signal from said detectable marker.

91. (Original): A composition comprising the formula:



wherein

Y is selected from the group consisting of O, S, and C;

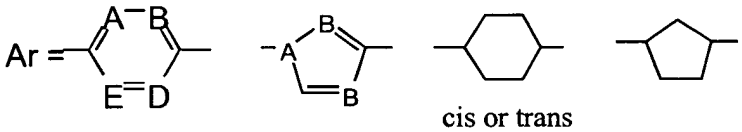
R_1-R_4 may be the same or different and are independently selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_5, -(C=O)OR_5, or -OCH_2(C=O)R_5 and a salt, wherein R_5 is a straight or branched, saturated or unsaturated, substituted or unsubstituted alkyl having 1-10 carbons;

X is a leaving group; and

linker is a moiety joining a detectable marker, D, to the platinum ion.

92. (Original): The composition of claim 91, wherein said leaving group is selected from the group consisting of NO_3, halogen, CN, $OCOR_6$, OCO-Phenyl, $OCOCH_2OC(Phenyl)_3$, O-Trityl and 3,5-dimethyl-phenyl-4-sulfate, wherein R_6 is selected from the group consisting of H, methyl, benzyl, sulfonate, phosphonate, NO_2, CF_3, halogen, O-R_5, -$(C=O)OR_5$, -$OCH_2(C=O)R_5$ and a salt.

93. (Original): The composition of claim 91 wherein said linker is selected from the group consisting of: $(CH_2)n$, $(CH_2)_n(CH=CH)_mO(CH=CH)_p(CH_2)_q$, $CO(CH_2)_n(CH=CH)_m(CH_2)_p$, $COAr(CH_2)_n(CH=CH)_m(CH_2)_p$, $NH_2(CH_2)_nQ$, $NH_2((CH_2)_nO)_m(CH_2)_tQ$, $NH_2(CH_2)_mAr(CH_2)_nQ$, wherein m, n, p, q and t are integers from 0 to 8, inclusive, and m, n, p, q and t are the same or different, wherein Q is selected from the group consisting of CONH, NHCO, -S-S-, NHCSNH, NHCSO, wherein



and A, B, D, and E are the same or different and are selected from the group consisting of CH, N, O and S.

94. (Original): The composition of claim 91 wherein the detectable marker, D, is selected from the group consisting of a fluorophore, a chromophore, a radiolabel, an enzyme and an affinity tag.

95. (Original): A nucleic acid comprising a composition of claim 91.

96. (Original): The nucleic acid of claim 95 wherein said composition forms a non-covalent adduct with said nucleic acid.

97. (Original): A probe comprising a composition of claim 91.

98. (Original): A method of labeling a nucleic acid, said method comprising the step of contacting a composition of claim 91 with said nucleic acid.

99. (Original): A method of probing a nucleic acid array, said method comprising the steps of contacting said array with a probe of claim 97 and detecting signal from said detectable marker.

100. (Original): A method of making a platinum labeling compound that comprises a stabilizing bridge, the method comprising the step of contacting potassium tetrachloroplatinate (II) with an aliphatic diamine labeled with a detectable marker, wherein said contacting results in a cis-platinum dichloride labeling compound.

101. (Original): The method of claim 100 wherein said aliphatic diamine is a cycloaliphatic diamine.

102. (Original): The method of claim 101 wherein said cycloaliphatic diamine is a 1, 2-cycloaliphatic diamine.

103. (Original): The method of claim 101 wherein said cycloaliphatic diamine is a cyclohexyl diamine.

104. (Original): The method of claim 103 wherein said cyclohexyl diamine is a 1,2-cyclohexyl diamine.

105. (Original): The method of claim 100 wherein said contacting is performed in aqueous solution at a pH of about 1.5 to 5.5 and at a temperature of about 65°C.